



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/758,152

01/15/2004

Jeremy Wickins

1003-0059

4633

26568

7590

09/26/2007

COOK, ALEX, MCFARRON, MANZO, CUMMINGS & MEHLER LTD  
SUITE 2850  
200 WEST ADAMS STREET  
CHICAGO, IL 60606

EXAMINER

CECIL, TERRY K

ART UNIT

PAPER NUMBER

1723

MAIL DATE

DELIVERY MODE

09/26/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/758,152

Applicant(s)

WICKINS, JEREMY

Examiner

Mr. Terry K. Cecil

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7, 10 and 14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1-15-2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Quase (U.S. 3,674,687). As shown in e.g. figure 1, Quase teaches a transfer connection between a pre-tank 60 and an aerating reactor tank 140. The pre-tank is provided with an overflow. The pre-tank includes a “sump” at the bottom corner of the tank including a “cover plate” (valve gates 94, 86 and associated walls) that reduces turbulence within the tank [as in claims 8-9]. The method of Quase teaches all the steps of claim 13 including batch treatment and transfer between the tanks.

### *Claim Rejections - 35 USC § 103*

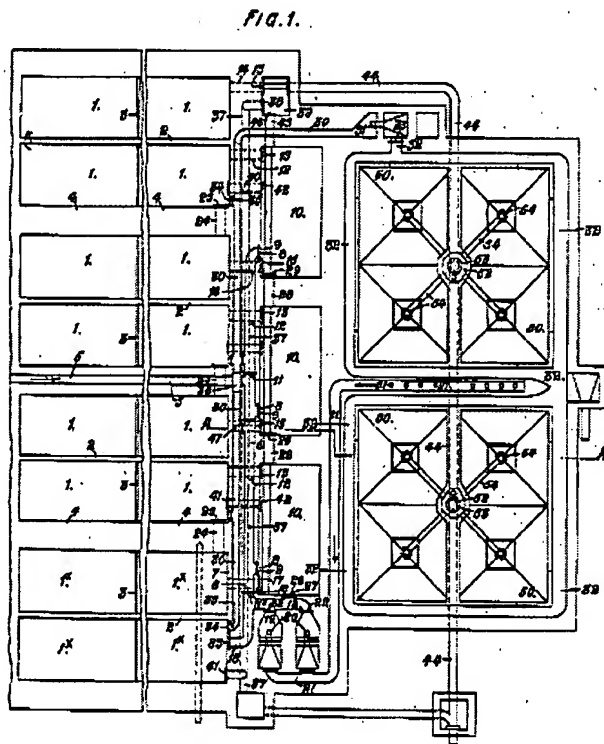
3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1, 3 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coombs (U.S. 1,456,914) in view of Quase (U.S. 3,674,687). Coombs teaches a wastewater treatment apparatus wherein a series of partitioned tanks 1 each have inlets (12) and outlets (14)



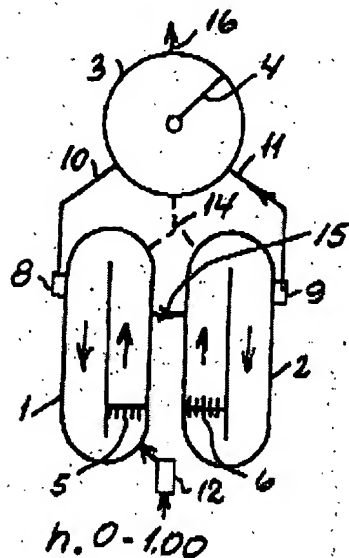
having respective valves (e.g. penstocks (13, 15). The outlets communicate with a treatment tank made up of chambers 10 interconnected by 28. Both the tanks and the treatment chambers are aerated. In cases of increased stormwater inflow, bypass channels 24 are opened to accommodate the increased volume *overflow*. Tanks 1 also have valve controlled inlets 34 for receiving effluent from the tank 50 via 30 and valve controlled outlets 40 communicating with 10.

Coombs doesn't teach a cover plate covering the sump with a spacing reducing turbulence of fluid within the tank during storm condition when transfer takes place. The pre-tank of Quase includes a "cover plate" (valve gates 94, 86 and associated walls of a valve chamber) that would reduce turbulence within the tank [as in claims 1 and 14]. It is considered that it would have been

Art Unit: 1723

obvious to one ordinarily skilled in the art at the time of the invention to have the cover plate of Quase in the invention of Coombs, since Quase teaches the benefit of a means for transferring wastewater between tanks when desired.

5. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coombs, as modified above, and in further view of Tholander et al. (U.S. 3,977,965). Coombs was expanded above and teaches aeration equipment of the pre-tank [as in claim 4] but doesn't



mention stirrers therein. However, Tholander teaches stirrers 5 and 6 in pretanks [as in claim 2]. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the stirrers of Tholander in the pre-tanks of the modified Coombs, since Tholander teaches the benefit of enhancing the treatment by mixing the sludge and/or air within the wastewater to be treated.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coombs, as modified by Quase, and in view of the German Reference (DE 10214305 A1). '305 teaches the storm overflow to include a weir (figure 1). It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the weir in the pre-tank of the modified Koulovatos, since '305 teaches the benefit of a means for removing excess stormwater flow from the system to prevent overloading thereof.

Art Unit: 1723

7. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coombs, as modified by Quase and Tholander, and in further view of Koulovatos et al. (U.S. 3,679,053) and White (U.S. 4,839,057). Koulovatos teaches a pretank with level sensors (11, 76) communicating with a controller 7 for controlling operation of the treatment system. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the level sensor control system of Koulovatos in the modified Coombs, since Koulovatos teaches the benefit of controlling the treatment system as desired. Coombs as further modified includes a control system controlling aeration in response to level sensor signals but doesn't teach the controller further controlling the stirrer. However, White teaches a stirrer in an aeration tank that shuts off after filling to a certain level (col. 2, lines 8-24). It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the aforementioned elements of White in the invention of the modified Coombs, since White teaches the benefit of allowing contaminants to settle to the bottom (important during Coombs quiescent stages).

#### ***Response to Arguments***

8. Applicant's arguments filed 7-26-2007 have been fully considered but they are not persuasive. Despite Applicant's remarks to the contrary, the gates 94 or 86 and the associated walls thereof would necessarily reduce turbulence when fluid is draining via drain 134.

Art Unit: 1723

*Drawings*

9. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because they do not comply with 37 CFR 1.84, i.e. concerning the character of lines, numbers, and letters. Applicant is reminded that

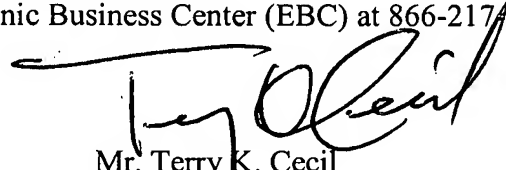
“All drawings must be made by a process which will give them satisfactory reproduction characteristics. Every line, number, and letter must be durable, clean, black (except for color drawings), sufficiently dense and dark, and uniformly thick and well-defined. The weight of all lines and letters must be heavy enough to permit adequate reproduction. This requirement applies to all lines however fine, to shading, and to lines representing cut surfaces in sectional views. Lines and strokes of different thicknesses may be used in the same drawing where different thicknesses have a different meaning.”

Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Art Unit: 1723

10. Contact Information:

- Examiner Mr. Terry K. Cecil can be reached at (571) 272-1138 at the Carlisle campus in Alexandria, Virginia for any inquiries concerning this communication or earlier communications from the examiner. Note that the examiner is on the increased flextime schedule but can normally be found in the office during the hours of 8:30a to 4:30p, on at least four days during the week M-F.
- David R. Sample, the examiner's supervisor can be reached on 571-272-1376, if attempts to reach the examiner are unsuccessful.
- The Fax number for this art unit for official faxes is (571) 273-8300.
- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mr. Terry K. Cecil  
Primary Examiner  
Art Unit 1723

TKC  
September 21, 2007